

EXHIBIT 1-ATTACHMENT E

**SIERRA CLUB COMMENTS ON
CONSENT DECREES, ATT. E:**

**US ARMY CORPS OF ENGINEERS
MILL CREEK, OHIO, FLOOD CONTROL
PROJECT
REPORT ON THE INITIAL SCREENING
OF ALTERNATIVES**

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U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
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MILL CREEK, OHIO, FLOOD CONTROL PROJECT

A BRIEFING DOCUMENT FOR THE GENERAL REEVALUATION REPORT

**REPORT ON THE
INITIAL SCREENING OF ALTERNATIVES**

**MARCH 2003
INITIAL SCREENING REPORT**

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SYLLABUS

EXECUTIVE SUMMARY

This report documents the initial screening of alternatives for the Mill Creek, Ohio, Flood Control Project as part of the Corps of Engineers (Louisville District) efforts to complete a General Reevaluation Report for the project. The Mill Creek, Ohio, Flood Control Project has a long history, beginning with a reconnaissance and feasibility report in the late 1960s. Following these studies, the Mill Creek, Ohio Flood Damage Reduction Project was authorized by the Flood Control Act of 1970 to provide flood damage protection along approximately 17.5 miles of the Mill Creek in Hamilton County, Ohio. Features of the authorized project included channel modifications such as widening and paved lining, two miles of levees, three pumping stations, modifications to highway and railroad bridges, addition of two pumping units at the existing Barrier Dam Pump Station, and various recreational features. Project construction began in 1981 and continued over 10 years. However, in 1991, then-Assistant Secretary of the Army (Civil Works), Nancy Dorn suspended the project pending a full review – due to inflated project costs, the presence of hazardous materials and contamination, as well as other complications. At this point, about 40-50% of the original authorized project was completed.

Project direction varied from termination to reevaluation until a cost-sharing agreement was made in 1998 to prepare a General Reevaluation Report (GRR). The need for additional funding and a suspension of work funds in 2000 led to further delays. In November and December 2000, “visioning sessions” were held with the communities and stakeholder agencies to solicit public input on future development of the Mill Creek basin. Local groups, particularly the Metropolitan Sewer District (MSD) of Greater Cincinnati, advanced the concept of a deep tunnel which would carry both excess storm water (from Mill Creek) and combined sewers overflow (CSO). Such an alternative would avoid surface construction problems in brownfield areas, and would also solve serious pollution problems in Mill Creek due to the numerous CSOs which empty into the creek. In mid-2001, the Louisville District prepared a *Bridging Document* – so-called because it was intended to be a “bridge” between early formulation efforts (1996-2000), and wishes of the community as expressed in the visioning sessions. The *Bridging Document* recommended focusing the GRR strictly on the tunnel alternative, since other alternatives were considered “unacceptable” by the Sponsor and local groups. However, additional Corps guidance in late 2001 directed that “the study must consider appropriate structural and non-structural alternatives” as necessary to identify the plan which maximizes National Economic Development (NED) benefits, which will serve as the basis for cost sharing for a Locally Preferred Plan.

In early 2002, Louisville District developed a four-stage study plan to complete the GRR analysis. Technical work actually began following a letter in April 2002, from the Assistant Secretary of the Army (Civil Works), prompting the effort to expedite completion of the Mill Creek, Ohio, Flood Control Project GRR.

An array of ten alternatives has been evaluated and compared during 2002 Stage 1 studies. This evaluation began with the following six alternatives:

- **Without-Project (WO)**
For the most part, the Mill Creek would be left as-is. The WO alternative (or No-Action alternative) was used as the basis of comparison for the other plans. Limited ecosystem restoration and provision of certain recreational facilities along portions of the Creek's riparian corridor will likely be undertaken in the future through programs and grants initiated by the Mill Creek Restoration Project (MCRP) or other local groups.
- **Total Relocation (RL)**
This alternative consists of relocating all structures in the 4% chance ("25-year") floodplain. Utilities and structures remaining in the floodplain would be demolished to ground level, and basements would be filled. Street pavement would also be removed.
- **Non-Structural (NS)**
This alternative consists of protecting selected high value/damage facilities with ring levees and relocating all other structures in the 4% chance ("25-year") floodplain. As with the RL alternative, remaining structures outside the ring levees would be demolished, and basements filled.
- **Channel Modification (CM)**
This alternative consists of modifying the channel to complete the construction of the channel which was designed per the currently authorized plan, as described in the 1975 General Design Memorandum (GDM), with the addition of a few features to assure protection from the 1% chance ("100-year") flood event through Mill Creek and the East Fork (in Hamilton Co.).
- **Floodwall (FW) and Levee**
This alternative consists of floodwalls and levees in the remaining uncompleted sections (4B, 5, 6, 7A, 7B, 7C, and 8) of the channel to provide protection from the 1% chance ("100-year") flood event.
- **Deep Tunnel (TU)**
This alternative consists of constructing a deep tunnel (approximately 31 feet in diameter and 200-300-feet deep) along the length of Mill Creek in Hamilton County to handle a portion of the flood flows. The tunnel would also provide capacity to handle CSOs for up to a 50% chance ("2-year") storm event. The TU alternative would provide flood protection from the 1% chance ("100-year") flood event.

After a preliminary review of data for the above alternatives, it was decided that three additional alternatives should be evaluated:

- **Non-Structural 2 (NS-2)**
This alternative is the same as NS but without buyouts or relocation. Only ring levees would be utilized for protection of 25 high-value/high-damage facilities. Structures remaining outside the ring levees would not be protected.
- **Channel Modification 2 (CM-2)**
This alternative consists of completing the 1975 Authorized Project utilizing environmentally sustainable design features.
- **Deep Tunnel 2 (TU-2)**
This alternative consists of the construction of a deep tunnel approximately half the length of the tunnel in the TU alternative. The TU-2 would serve the upper portion of the study area and discharge at the point of the existing improved channel. This alternative would provide no relief to CSOs, but virtually the same overbank-flood protection as the TU alternative.

In February 2003, a tenth alternative was added for consideration. The addition of this alternative allowed for direct comparison with the surface structural and tunnel alternatives, both of which offer flood damage protection to the 1% chance event:

- **Non-Structural 3 (NS-3)**
This alternative is similar to the NS alternative but with the increase of protection for the entire 1% chance ("100-year") floodplain.

This screening-level document outlines and evaluates the above ten alternatives and provides a very preliminary assessment of the impacts associated with their individual implementation. This analysis will lead to the selection of two or three alternatives that will be evaluated in greater detail during later stages of the GRR evaluation.

The following table summarizes the economic results of the With-Project alternatives (based on a 2010 project base year):

Alternative	Average Annual Benefits	Average Annual Costs	Benefit to Cost Ratio	Annual Net Benefits
Total Relocation (RL)	\$53.7 m	\$44.3 m	1.21	\$9.5 m
Non-Structural (NS)	\$49.9 m	\$38.4 m	1.30	\$11.5 m
Non-Structural 2 (NS-2)	\$40.4 m	\$10.6 m	3.82	\$29.8 m
Non-Structural 3 (NS-3)	\$53.4 m	\$61.4 m	0.87	(-\$8.0 m)
Channel Modification (CM)	\$49.4 m	\$32.1 m	1.54	\$17.3m
Channel Modification 2 (CM-2)	\$49.4 m	\$44.9 m	1.10	\$4.6 m
Flood Wall & Levee (FW)	\$44.5 m	\$38.2 m	1.16	\$6.3 m
Deep Tunnel (TU)	\$48.2 m	\$51.7m	0.93	(-\$3.5 m)
Deep Tunnel 2 (TU-2)	\$49.4 m	\$29.2 m	1.69	\$20.2m

Notes: for comparison purposes the benefits and costs are presented for a 2010 project base year; discount rate of 5.875%; 50-year project life; price levels are for 2002 dollars.

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LIST OF ACRONYMS AND ABBREVIATIONS

BCR	Benefit to cost ratio
CAGIS	Cincinnati Area Geographic Information System
CELRD	Corps of Engineers, Lakes & Rivers Division (Cincinnati)
CELR	Corps of Engineers, Lakes & Rivers Division, Louisville District
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response Compensation, and Liability Information System
CM	Channel Modification Alternative
CM-2	Channel Modification 2 Alternative
CSO	Combined Sewers Overflow
DEIS	Draft Environmental Impact Statement
FEIS	Final Environmental Impact Statement
EPA	Environmental Protection Agency
ER	Engineering Regulation
FDA	Flood Damage Analysis
FEMA	Federal Emergency Management Agency
FIA	National Flood Insurance Administration
FW	Floodwall/Levee Alternative
FWS	Flood Warning System
GDM	General Design Memorandum
GEC	Gulf Engineers & Consultants
GIS	Geographic Information System
GRR	General Reevaluation Report
HEC	Hydraulic Engineering Center
HQ	Headquarters
HTRW	Hazardous, toxic, and radioactive waste
IPR	In-Progress Review
ITR	Independent Technical Review

LIST OF ACRONYMS AND ABBREVIATIONS (cont'd)

LCA	Local Cooperation Agreement
LRD	Lakes and Rivers Division
MCRP	Mill Creek Restoration Project
MCWC	Mill Creek Watershed Council
MG/yr	Million gallons per year
MWH	Modified Warmwater Habitat
MSD	Metropolitan Sewer District
MSL	Mean sea level
MVCD	Millcreek Valley Conservancy District
NED	National Economic Development
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
NS	Non-Structural Alternative
NS-2	Non-Structural 2 Alternative
NS-3	Non-Structural 3 Alternative
NWI	National Wetlands Inventory
ODNR	Ohio Department of Natural Resources
OEPA	Ohio Environmental Protection Agency
PED	Planning, Engineering, and Design
PMP	Project Management Plan
PSP	Project Study Alternative
RCRA	Resource Conservation and Recovery Act
RL	Total Relocation Alternative
ROW	Rights-of-way
SACCR	Schedule and Cost Change Request
SCS	Soil Conservation Service
SHPO	State Historic Preservation Office

LIST OF ACRONYMS AND ABBREVIATIONS (cont'd)

SPT	Standard Penetration Test
TDS	Total Dissolved Solids
T&E	Threatened and endangered
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
TU	Deep Tunnel Alternative
TU-2	Deep Tunnel 2 Alternative
TWA	Time Weighted Average
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WO	Without-Project Alternative
WSO	Weather Station Office

1. PROJECT AUTHORITY AND COST-SHARING AGREEMENTS

1.1 PROJECT AUTHORIZATION

In June 1965, the Committee on Public Works for the U.S. House of Representatives adopted a resolution directing a study for flood control and other allied purposes in Mill Creek Basin, Ohio. This was followed by two additional resolutions in May 1967 and October 1967 by the Committee on Public Works for the U.S. Senate and U.S. House of Representatives, respectively, directing studies to consider a comprehensive plan of development in Southwestern Ohio, including improvements for flood control.

As a complete response to the June 1965 resolution and a partial response to the 1967 resolutions, the Chief of Engineers submitted an interim survey report to the Secretary of the Army in 1970 for transmission to Congress. The interim survey report recommended the development of various channel improvements and levees intended to provide a level of flood protection for a 1% chance ("100-year") flood event along approximately 17.5 miles of Mill Creek in Hamilton County, Ohio and along the $\frac{3}{4}$ mile length of East Fork in Hamilton County (refer to Figure 1.1.1 for a general overview map of the study area and to Appendix VI for more detailed mapping). The recommended plan would provide for a series of channel modifications, such as widening, deepening, and paved lining, in combination with the construction of levees, landfills, and pumping stations along certain stretches of the creek; the modification of bridges, roads and sewer systems; the addition of pumping units to the Mill Creek Barrier Dam; and the development of various recreational features.

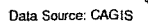
Congress authorized the Mill Creek, Ohio Flood Damage Reduction Project in Section 201 of the Flood Control Act of 1970 (P.L. No. 91-611) approved December 31, 1970. The authorization provided as follows:

Sections 201 and 202 and the last three sentences of Section 203 of the Flood Control Act of 1968 shall apply to all projects authorized in this title. The following works of improvement for the benefit of navigation and the control of destructive floodwaters and other purposes are hereby adopted and authorized to be prosecuted by the Secretary of the Army, acting through the Chief of Engineers in the respective reporter hereinafter designated . . .

OHIO RIVER BASIN

The flood protection project on Mill Creek, in Ohio, is hereby authorized, substantially in accordance with the recommendations of the Chief of Engineers in House Document Numbered 91-413, at an estimated cost of \$32,642,000.

Design and real estate acquisition work began in the early 1970's, and construction began in 1981. Construction continued until 1991 (with only four of the 11 sections completed and two other sections partially completed), when the Assistant Secretary of the Army (Civil Works) suspended all work on the project until a full review of the project could be made.



In 1994, a Plan of Study was developed for a General Reevaluation Report (GRR), to evaluate the feasibility of completing all or parts of the project. The project fluctuated from termination to reevaluation from then until 1997, when the decision was made to reevaluate the project and prepare a GRR. (More details on the history and chronology of the project are provided later in Sections 2, 3 and 4.)

The current evaluation effort is a continuance of the authorized Mill Creek, Ohio, Flood Damage Reduction Project. The effort's goal is to complete the GRR and make recommendations for further improvements and/or for the long-term maintenance of management of the Mill Creek. In all probability, many of the alternatives considered in this report would require congressional review and approval prior to implementation.

1.2 LOCAL SPONSOR AGREEMENTS

A Local Cooperation Agreement (LCA) was executed between the U.S. Army Corps of Engineers (USACE) and the local sponsor, Millcreek Valley Conservancy District (MVCD), for the flood damage reduction work to be completed under the Mill Creek Flood Damage Reduction Project in 1975. Under the LCA for flood control, MVCD assumed responsibility to:

- Provide without cost to the United States all lands, easements, and rights-of-way (ROW) necessary for the construction of the project.
- Hold and save the United States free from damages due to the construction works.
- Maintain and operate all the works after completion in accordance with the regulations prescribed by the Secretary of the Army.
- Provide without cost to the United States all modifications and relocations of buildings, utilities, streets, footbridges, sewers, and related and special facilities as necessary for the construction of the project.
- Prevent encroachment on improved channels and on ponding areas, which would impair capacities.

An LCA for recreation was also executed in 1975 under which MVCD assumed responsibility to pay 50% of the costs of recreational development and to maintain and operate the recreational areas and facilities upon completion.

Two subsequent agreements were entered into in connection with the GRR that the USACE Louisville District was directed to initiate on the project. The Department of the Army, the MVCD, the City of Cincinnati, Ohio, and the Village of Evendale entered into a GRR Cost Sharing Agreement in 1998. The Department of the Army and MVCD also entered into an Operation and Maintenance Agreement in 1998 under which MVCD assumed responsibility for operation and maintenance of the project sections upon completion of each section.

2. INTRODUCTION, PURPOSE AND SCOPE OF REPORT

2.1 INTRODUCTION TO THE MILL CREEK FLOOD CONTROL PROJECT

Mill Creek is a 28-mile stream in southwestern Ohio, which drains into the Ohio River in the City of Cincinnati. Much of the creek's length runs through highly developed areas. Historically, Mill Creek has experienced significant flooding, both from backwaters of the Ohio River and from localized rainfall events.

Section 1.1 discussed the actions which authorized the Mill Creek flood control study (as early as 1965), and the interim survey report leading to the authorization of the Creek, Ohio Flood Damage Reduction Project in 1970. Design and real estate acquisition work began in the early 1970's, and construction began in 1981. (See Section 4 for chronological details).

In 1991, with only four of the 11 sections completed and two other sections partially completed, the Assistant Secretary of the Army (Civil Works) suspended all work on the project until a full review of the project could be made. The four reasons cited for the suspension were: (1) project costs had grown from \$32 million to a projected \$341 million; (2) real estate acquisitions and relocations for the remainder of the project were not yet accomplished, bringing into question whether the local sponsor was committed to the project and capable of fulfilling its financial obligations; (3) hazardous materials could cause contamination; and (4) completed sections were not being operated and maintained by the local sponsor. As actually built, the level of protection along completed sections varies from section-to-section along Mill Creek, but is believed (based on current data) to fall between a 2%- and 1%-chance flood (between the "50-year" and "100-year" flood level).

The project fluctuated from termination to reevaluation between 1992 and 1997. Ultimately, the decision was made to reevaluate the project and prepare a GRR. A cost-sharing agreement for the GRR was executed in 1998, in addition to an Operation and Maintenance (O&M) Agreement for the completed sections. Originally, this effort was to conclude in October 2000 with the GRR.

In late 2000, a series of public meetings (Visioning Sessions) were held with the communities and stakeholder agencies to solicit public input on future development of the Mill Creek basin. (A report summarizing the Visioning Sessions, prepared by the contractor who facilitated these sessions, is included in this report as Appendix II.) In June 2001, the *Mill Creek, Ohio Flood Damage Reduction Project Bridging Document* was published to help bridge past evaluation efforts and the "way-ahead." It was intended that the *Bridging Document* would include the USACE Louisville District's recommendation for completion of the GRR in connection with public opinion of what type of flood damage reduction project would be acceptable. The *Bridging Document* recommended that the GRR focus only on various designs for a deep-tunnel, which would solve both flooding problems along Mill Creek as well as problems with combined sewer overflows (CSOs). A deep tunnel would also avoid surface construction which could be complicated by the numerous industrial "brownfields" and/or the

presence of hazardous and toxic waste along the streambanks after over 150 years of intense industrial activity. At this point, a deep-tunnel was the locally preferred plan.

In November 2001, review memos on the *Bridging Document* were received from both the USACE's Lakes and Rivers Division (LRD-Cincinnati) and from USACE's Headquarters (HQ). These memos recommended replacing the old Memo of Agreement with the Sponsor with a design agreement specifying 75% Federal and 25% non-Federal cost sharing--consistent with current USACE policy. The memos further specified that the GRR should evaluate a wide array of both structural and non-structural alternatives to provide flood reduction and solve other problems along Mill Creek. (A more detailed year-by-year chronology of the history of this project is presented in Section 4).

In order to complete the GRR in keeping with the Nov.2001 LDR and USACE HQ guidance, an array of 5 With-Project alternatives and a revised evaluation process was developed by the USACE Louisville District study team between December 2001 and March 2002, and coordinated with LRD and USACE HQ representatives, and with the project Sponsor and other local stakeholders. The five With-Project alternatives included:

- Plan RL – total relocation of structures within the 4% chance event (“25-year”) floodplain.
- Plan NS – plan similar to RL, but certain high-damage structures would be protected by ring-levees or other flood-proofing measures.
- Plan CM – complete the channelization of Mill Creek, providing protection along Mill Creek up to the 1% chance (“100-year”) level of protection, using a design very similar to that developed by the USACE in the 1975 General Design Memorandum (GDM) and subsequent Feature Design Memoranda.
- Plan FW – use primarily levees and floodwalls to provide protection along Mill Creek up to the 1% chance (“100-year”) flood level.
- Plan TU – construct a deep 16-mile long tunnel (plus other measures) to protect Mill Creek up to the up to the 1% chance (“100-year”) level. This tunnel would incidentally also provide a significant reduction to CSO problems along the creek through the provision of some sewer drop-shafts, various connections to the sewer system, and connections to the Cincinnati sewage treatment plant at the downstream end of the considered tunnel. The plan has been developed to a reconnaissance level-of-detail by the Metropolitan Sewer District of Greater Cincinnati (MSD) and their consultant Parsons-Brinkerhoff.

Between December 2002 and February 2003, following coordination with LRD, it was decided that four variations (primarily of the NS and CM plan) also be considered. Hence, this report will summarize the findings of nine With-Project alternatives and one Without -Project which serves as a baseline.

In order to evaluate the alternatives in an effective and timely manner, a four-stage study process was developed and coordinated in early 2002. In April 2002, this process was formalized into a revised working draft Project Management Plan (PMP) in April 2002. On October 15, 2002, after various revisions, the current working PMP was published and signed by the Sponsor and Study Team partners. The four-stage process is:

Stage 1: Initial screening of an array of alternatives.

Stage 2: Optimization of two final plans.

Stage 3: Final detailed studies leading to a draft GRR and DEIS.

Stage 4: Final coordination and report generation (final GRR and FEIS).

2.2 SCOPE & PURPOSE

The purpose of the entire GRR process leading to a final GRR report is to provide a complete technical, environmental and economic assessment of flood reduction alternatives for the Mill Creek Study Area. The purpose of this document is to provide a "mid-course" screening-level report which will provide decision-makers (including local stakeholders and USACE's higher authority) information on the results of the Stage 1 analyses, as conducted between April 2002 and February 2003. This report is primarily intended to be a technical report to assist the decision-makers, and is not intended for mass distribution. This report should not be construed as a preliminary GRR as it may lack certain discussions or figures that would be appropriate in a more formal document.

2.3 SCOPE OF THIS INITIAL SCREENING REPORT

This Initial Screening of Alternatives Report is intended to offer comparisons among the array of nine With Project alternatives. This screening-level analysis was based largely, although not exclusively, on the development of the following for each plan:

- Design layouts using the latest available mapping of the study area.
- Assessment of O&M features and costs.
- Potential for hazardous and toxic waste concerns during construction.
- Preliminary construction schedule.
- Identification of significant biological and cultural resources in the study area, and preliminary analysis of potential impacts to these resources.
- Screening-level evaluation of costs and benefits.

It was intended per the PMP that (following review of this report) an In-Progress Review (IPR) Conference would be held for the purpose of deciding which of the nine With-Project alternatives would be carried forward. At a minimum, the IPR would include the Sponsor, local stakeholders, study team leaders, and LRD and HQ-USACE officials.

2.4 CRITERIA FOR ALTERNATIVE'S COMPARISON

A goal of the evaluation and comparison process was to evaluate each alternative against two sets of criteria. According to USACE Engineering Regulation (ER) 1105-2-100 for planning criteria, a project in a Feasibility or GRR report must be analyzed with regard to the following four criteria:

- *Completeness* – Does the plan include all necessary parts and actions to produce the desired results?
- *Effectiveness* – Does the alternative meet the objectives to some degree? How does it stack up against constraints?
- *Efficiency* – Does the plan minimize costs? Is it cost effective?
- *Acceptability* – Is the plan acceptable and compatible with laws and policies?

Although the above four criteria are the current and official USACE criteria for plan evaluation, an old list of criteria from previous editions of ER1105-2-100 has also been used in the course of the GRR evaluation to-date. This “old list” stipulates that plans developed in the course of USACE’s studies must be:

- (1) economically justifiable,
- (2) environmentally sustainable,
- (3) publicly acceptable,
- (4) engineeringly feasible.

This “old-list” of criteria was widely discussed between team members and local stakeholders during the *Visioning Sessions* and during development of the set of nine With-Project alternatives. Therefore, although there is some overlap in meaning between the “old list” and the current four criteria, both were used in this report for comparison, particularly in the summaries of Section 11. (At the upcoming IPR, LRD and HQ may provide guidance on exactly which criteria to use or emphasize in the later final GRR.)

2.5 STUDY PARTICIPANTS

Study participants are grouped into three major categories and subcategories as shown below:

TECHNICAL STUDY

- USACE, Louisville District (overall technical management)
- USACE, Chicago District (economics studies)
- U.S. Fish and Wildlife Service (Reynoldsburg, OH field office)
- U.S. Environmental Protection Agency (Region 5, Chicago)
- Ohio Environmental Protection Agency (OEPA)
- Environmental and Engineering Consultants:
 - GEC, Inc. (Environmental and Cultural Resource Studies)
 - URS Corporation (Plan Formulation and Document Preparation)
 - Gray & Pape, Inc. (Cultural Resources)

PRIMARY LOCAL INTERESTS (Stakeholders)

- Millcreek Valley Conservancy District (MVCD) – Local Sponsor
- Metropolitan Sewer District of Greater Cincinnati (MSD)
- Mill Creek Watershed Council (MCWC)
- Mill Creek Restoration Project (MCRP)
- Ohio, Kentucky, Indiana Regional Council of Governments (OKI)
- Rivers Unlimited

INDEPENDENT TECHNICAL REVIEW (ITR)

- USACE, Nashville District (ITR lead and Planning ITR)
- USACE, Louisville District (most engineering disciplines and economics ITR)
- USACE, Chicago District (structural design ITR)

3. PRIOR STUDIES AND REPORTS

3.1 GENERAL

The Mill Creek Valley Flood Protection Project has been ongoing for approximately four decades, and many reports, reviews, and assessments have been written. The following documents are currently available. This is not, however, an exhaustive list of every document written over the life of this project.

USACE, Louisville District, *Report of Sedimentation Survey, West Fork Mill Creek Reservoir, Ohio*, October 1962.

USACE, Louisville District, *Plan of Survey for Review Report of Survey Scope on Mill Creek Basin, Hamilton and Butler Counties, Ohio, for Flood Control and Allied Purposes*, February 1966, revised April 1967.

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Public Hearing for Consideration of Improvements for Flood Control on Mill Creek, Cincinnati, Ohio, 23 January 1969.

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USACE, Louisville District, *Phase I – Plan Formulation, General Design Memorandum, Mill Creek Local Flood Protection Project, Ohio River Basin, Mill Creek, Hamilton and Butler Counties, Ohio, Design Memorandum No. 2*, April 1974.

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USACE, Louisville District, *Phase II – Project Design, General Design Memorandum, Mill Creek Local Flood Protection Project, Ohio River Basin, Mill Creek, Ohio, Design Memorandum No. 3*, March 1975.

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USACE, Louisville District, *Report of Sedimentation Survey, West Fork Lake, Ohio, 1975, Sedimentation Resurvey Supplement No. 2 to Design Memorandum No. 3*, August 1976.

USACE, Louisville District, *Mill Creek Local Flood Protection Project, Mill Creek, Ohio, Design Memorandum No. 5, Railroad Relocations*, February 1977.

Ohio, Kentucky, Indiana, Regional Council of Governments (OKI), *Regional Water Quality Management Plan*, June 1977.

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USACE, Louisville District, *Mill Creek, Ohio, Local Protection Project, Section 3 and 4, Master Plan, Design Memorandum Number 6*, March 1984.

USACE, Louisville District, *Design Memorandum No. 6, Barrier Dam Pumps, Mill Creek Local Flood Protection Project, Ohio River Basin*, August 1984.

USACE, Louisville District, *Draft, Mill Creek, Ohio, Local Flood Protection Project, Master Plan for Public Use, Design Memorandum Number 7*, March 1990.

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Mill Creek, Ohio, Local Protection Project, Section 4B, Subsurface Characterization and Contamination Assessment Report, January 1991.

USACE, Louisville District, *Mill Creek, Ohio, Local Flood Protection Project, Master Plan for Public Use Design Memorandum No. 7*, August 1991.

Thomas A. Stitt, P.E., P.S. and Woolpert, *Final Report Estimated Flood Protection Benefits, Millcreek Valley Conservancy District*, July 30, 1993.

Ohio Environmental Protection Agency (EPA), Division of Water Quality Planning and Assessment, *Biological and Water Quality Survey of Mill Creek (Butler and Hamilton Counties, Ohio)*, August 25, 1993.

USACE, Louisville District, *Plan of Study, Mill Creek, Barrier Dam-Forebay Sedimentation Study, Ohio, Reconnaissance Stage Study*, November 1993.

USACE, Louisville District, *Environmental Site Assessment for 11 Soil Disposal Areas at the Mill Creek, Ohio Local Protection Project, Phase 1*, January 1994.

OKI, Ohio, Kentucky, Indiana Regional Council of Governments, *Mill Creek Watershed Management Plan, Butler and Hamilton Counties, Ohio*, July 1995.

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Gulf Engineers & Consultants (GEC), *Mill Creek Flood Control Project, Hamilton County, Ohio, Summary Report Sections 2, 4B, 5, and 6, Environmental Design Constraints*, October 2000.

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Ohio EPA Division of Surface Water, Laws and Rules, *Mill Creek Drainage Basin*, <http://www.epa.state.oh.us/dsw/rules/01-30.pdf>, November 2002.

U.S. Department of Agriculture, Soil Conservation Service, *Work Plan for Watershed Protection and Flood Prevention, Upper Mill Creek Watershed, Butler and Hamilton Counties, Ohio*.

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USACE, Louisville District, *Mill Creek, Ohio Flood Protection Reduction Project – Project Management Plan*, 15 October 2002.

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US Army Corps of Engineers, Louisville District, *DRAFT Study Area Literature Review and Pedestrian Phase I Archaeological Reconnaissance of 488 Acres Adjacent to the Mill Creek Flood Damage Reduction Project, Hamilton Co., Ohio*, prepared by Gray & Pape (Cincinnati), January 2003.